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PLANNING THE OUTDOOR PHYSICAL EDUCATION FACILITIES FOR CENTRAL SCHOOLS. PLANNING THE OUTDOOR PHYSICAL EDUCATION FACILITIES, NO. 10.

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PLANNING OUTDOOR PHYSICAL EDUCATION FACILITIES FOR THE CENTRAL SCHOOL SERVING PUPILS FROM KINDERGARTEN THROUGH HIGH SCHOOL SHOULD TAKE INTO ACCOUNT THE NEEDS AND INTERESTS OF ALL PUPILS DURING THE SCHOOL YEAR AND SHOULD PROVIDE FOR RECREATION NEEDS DURING VACATION PERIODS. PROVISION FOR RECREATIONAL FACILITIES FOR ADULTS SHOULD ALSO BE MADE. THE FIRST OF FIVE DISTINCT PLAY AREAS DESCRIBED IS THE ELEMENTARY AREA. THREE ACRES FOR 300 PUPILS PLUS ONE-HALF ACRE PER HUNDRED PUPILS OVER THIS AMOUNT ARE NEEDED FOR THIS PURPOSE. AREAS FOR KINDERGARTEN SHOULD INCLUDE TURF, APPARATUS, AND SHADE. SECONDLY, COURTS SHOULD BE PROVIDED. AN ACRE IS SUGGESTED FOR FACILITIES OF THIS KIND. A THIRD AREA SHOULD BE FOR HIGH SCHOOL GIRLS. TWO ACRES ARE NEEDED FOR THE VARIOUS FIELD ACTIVITIES OF THIS GROUP. THE FOURTH AREA SHOULD BE FOR HIGH SCHOOL BOYS. THREE ACRES WILL BE SUFFICIENT FOR THE ACTIVITIES OF THIS GROUP. THE LAST AREA SHOULD BE FOR INTERSCHOLASTIC ATHLETIC COMPETITION. VARIOUS PLANS ARE SUGGESTED WHICH REQUIRE DIFFERING AMOUNTS OF SPACE. SOME AREAS MAY BE ABLE TO CONSIDER WINTER ACTIVITIES ALSO. THIS SITE WILL DETERMINE WHETHER OR NOT SLIDING WILL BE FEASIBLE, AND SKATING IS YET ANOTHER CONSIDERATION. NUMEROUS DRAWINGS OF REGULATION FIELDS AND COURTS ARE PROVIDED. (RH)

10

THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
DIVISION OF EDUCATIONAL FACILITIES PLANNING
ALBANY, NEW YORK 12224

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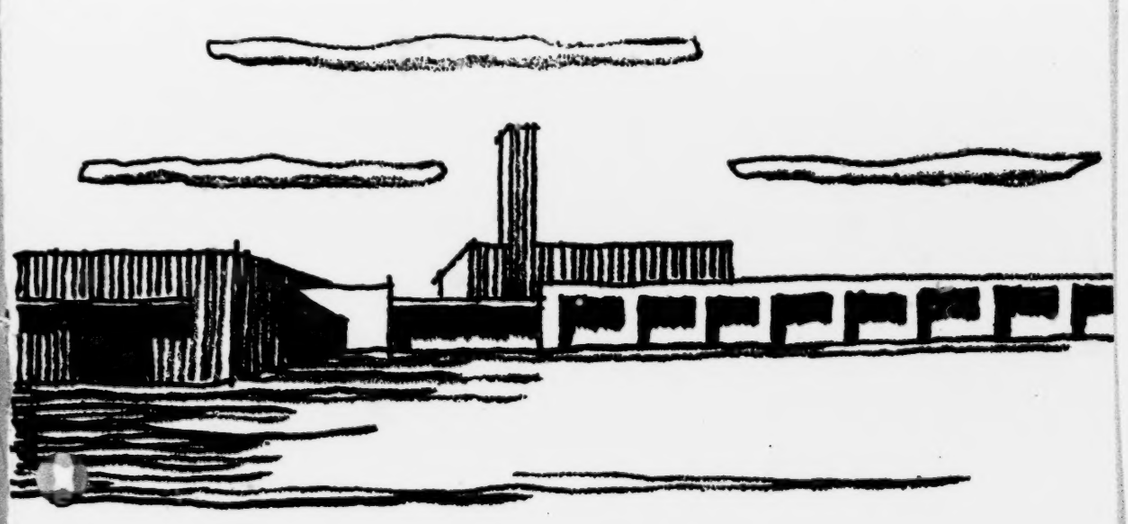
# Planning the Outdoor Physical Education Facilities



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DIVISION OF EDUCATIONAL FACILITIES PLANNING

# Planning the Outdoor Physical Education Facilities

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# PLANNING THE OUTDOOR PHYSICAL EDUCATION FACILITIES FOR CENTRAL SCHOOLS

In planning the outdoor facilities for the central school serving children from the kindergarten through the high school, it should be borne in mind that the modern school has two major needs: (1) to provide for the physical education needs and interests of all the pupils during the school year, and (2) to make provision for the recreation needs of these pupils during vacation periods and for the people in the community. This principle is not only sound from the standpoint of professional supervision and economical operation but also makes possible the maximum utilization of all facilities.

The recreation program for out-of-school youth and adult groups includes a broad range of activities and interests. Since most of the interests and hobbies are fixed before the end of high school, there is a marked similarity between the interest of school-age groups and out-of-school youth and adults, and facilities planned for the school-age groups can, therefore, be easily adapted for the out-of-school youth and adults. Generally the peak load for the school-age group falls during the working day and that of the out-of-school youth and adults after the end of the working day. This makes possible the dual use of such physical education facilities and permits a community to plan the schools and their facilities as education and recreation centers, thus avoiding the cost of duplicate facilities and providing for a better integration of recreation and education.

A program of physical education planned for the different age groups will include certain activities that are basic and for which specific facilities must be provided. Children of the kindergarten and the first two grades engage in climbing, jumping and those activities that provide for freedom of movement and the development of the large muscles. Every opportunity should be given to children of these ages to pursue these interests individually or in small groups. Some emphasis is given in the lower grades to group and singing games. The program for grades 3 and 4[1] emphasizes skill in game elements such as running, jumping, kicking, throwing and catching, while the program for grades 5 and 6[1] places a greater emphasis on

[1] Physical Education Syllabus, Book II, Elementary School. State Education Department. Albany. 1934.

team games and the development of fundamental skills used in playing games. Children of the latter grades engage in more physical activity than in any other period in their lives.

The program for the junior high school girls is planned to give a broad foundation in physical education activities upon which can be based the more highly specialized instruction and practice for the activities included in the senior high school program such as archery, golf, volleyball, tennis, hockey, speed ball and softball.[1] The program for the junior high school boys offers opportunities for instruction and practice in a wide variety of activities. This program is conducted largely on an intramural basis, although many schools offer limited competition in certain types of interschool athletics. The senior high school girls' and boys' program is planned so that the intramural and the boys' interschool activities can be conducted simultaneously. Many central schools do this by arranging a staggered after-school program and by adjusting the bus schedules accordingly. Others schedule a general intramural and club activity period while some arrange for intramural participation within the noon hour. The intramural program includes a broad variety of activities and should offer opportunities for all girls and boys.

This pamphlet undertakes to point out the desirable outdoor physical education and recreation facilities needed for the achievement of the above-mentioned program in the average central school of this State and refers to the usable space for these purposes exclusive of the building area, lawn, parking facilities etc. In addition to central schools, it is expected that all types of schools will find the information helpful in planning outdoor facilities.

There are a number of essential features that should be considered whenever any outdoor facilities are planned, namely, the location, size, shape, topography, natural features, soil, drainage and water supply. All these factors need careful examination in connection with the program to be offered before a selection of the site is made. The plans for the development of the recreation area should proceed along with the study of the building plans, in order to avoid mistakes which can not be corrected later. The location of the physical education facilities should be as near the gymnasium and locker rooms as possible yet far enough removed from the classrooms to prevent playground noise interfering with classroom instruction. Streets, roadways or driveways should not be constructed between the build-

[1] Physical Education Syllabus, Book III, Secondary School Girls. State Education Department. Albany. 1934.

ing and the playground areas. At the same time the facilities should be reasonably accessible to parking areas in order to encourage community use.

The size of a playground area is dependent upon these factors: (1) the program to be offered and (2) the number of pupils utilizing the facilities during the periods of peak or maximum load, very frequently the total pupil enrolment. The first factor is of primary importance, for regardless of the number of pupils in the school, the program dictates the necessity of certain areas of more or less definite size.

Five distinct play areas seem to be desirable in a recreation area serving the needs of the central school. As certain of these areas need to be nearer the school building than others, they have been listed in the order of proximity to the building.

1 Elementary area
2 Courts area
3 High school girls' area
4 High school boys' intramural area
5 Interschool athletic area

These areas will be treated individually herewith as each one has a distinct purpose and function to perform in the total physical education and recreation area.

### Elementary Area

This area, to serve the needs of the children from the kindergarten through the sixth grade, should be located near the building and should be easily accessible to the elementary classrooms. It is recommended that any elementary physical education and recreation area have a minimum of three acres[1] for 300 pupils, with one-half acre added for each additional 100 pupils.

The kindergarten children should have a section of the elementary area of not less than 5000 square feet set aside for their exclusive use while they are in the playground. Such an area is often separated from the rest of the elementary playground by a fence or a hedge. In this section it is desirable to have a turf area, a digging spot and a small surfaced area as well as some shaded space. It is recommended that the surfaced area of asphalt or some such material be not less than the size of the kindergarten room itself, and that it be located just outside the doorway. This provides a place for the children to

[1] Exclusive of the building area, lawn, parking facilities etc.

play in winter or immediately after a rain. It has been found practical to locate a playhouse immediately adjacent to the surfaced area, so that stored equipment such as large outdoor blocks, planks and sawhorses can be used more frequently and immediately following wet weather. The digging spot or sand areas are usually inclosed by planking, not more than one foot in height, in order to retain the sand within the area. The shaded area is well suited to a storytelling corner and some schools prefer to locate some apparatus such as a jungle gym, bars and a balance beam here.

Many schools provide a separate play area for pupils of the first, second and third grades, but this depends upon local needs and interests. Perhaps there will be occasional instances that the first, or even the second, grade pupils may utilize to advantage the kindergarten area when not in use by the kindergarten pupils.

In the section of the elementary area, exclusive of the kindergarten playground, there should also be (1) a turf area, (2) an apparatus area, (3) a shaded area. The turf area, a level section, can be utilized by the elementary children for informal play activities, for running, and for games of low organization. It also can be used by the pupils of the fifth and sixth grades for such games as softball, field ball, modified soccer etc. It would be desirable in many schools to make a division of the elementary area so that the younger children as well as the older pupils will have their own particular play space.

The apparatus area providing such equipment as climbing bars and horizontal ladders should be located in such a way as not to break up any large space available and should be in a shaded spot when possible. There should be ample space around all apparatus so as to provide proper safety, but the apparatus should not be so scattered as to waste room needed for group activities. It has been found practically impossible to maintain turf in the apparatus area; therefore, a surface with torpedo sand or some similar material is desirable. No loose stones or other obstructions should be permitted on this area. The landing space around the apparatus should be filled with sawdust, shavings or some similar type of soft material.

The shaded area of the elementary playground often contains not only some apparatus but also space for ring toss, bean bag boards, marbles, ping-pong tables, hopscotch etc. Teachers often find this area an excellent place for a storytelling corner as a greater degree of quiet usually exists in this spot.

Natural features such as rocks, trees and rough terrain are often found on some school sites and these should not be disturbed or changed too greatly as they lend themselves very well to elementary children's play activities. Where such natural features are nonexistent in the recreation area, schools can provide realistic play situations by setting up sections of large cement or tile pipe and improvising miniature wooden locomotives, farm tractors, steam rollers and other such articles upon which the children can climb and engage in realistic play activities.[1]

### Courts Area

The courts area should be located near the building easily accessible to the gymnasium and as near the parking facilities as possible. The only area having priority for proximity to the building is the elementary area. The courts area should be paved with asphalt or some such material, and fencing of the area is a requisite with particular attention to the installation of a fine mesh wire fence around the handball courts. Rapid and efficient drainage is very essential in this area in order to make it ready for use soon after a rain.

An area of about one acre will accommodate comfortably four tennis courts, four handball courts, three badminton courts and two volleyball courts. When the handball courts are placed in a battery of two double courts, it is necessary that at least ten feet be allowed on the sides and the ends of the courts if there are no side walls constructed. Some schools may desire to construct side walls or partial side walls for the handball courts, in which case it is not necessary to have space between the courts but it is essential to allow ten feet behind the long line. Squash tennis and squash racquets may be played on the handball courts and paddle tennis and deck tennis may be played on the badminton courts. The net posts should be set in sleeves embedded in concrete to enable removal of the posts and capping of the sleeves. This will permit the area to be used for many other types of games and for skating in winter, if desired. If asphalt or other such surface is used, lines may be painted on the area for the various types of games with a different color for each sport so that the courts are ready for use at any time. Many schools should allow additional space immediately adjacent to this area for the future expansion of these facilities, which often become extremely popular with the entire community.

[1] When They Play Out-of-Doors, by Clara Lambert. Play School Association. New York City. 1945.

Many schools will desire to locate horseshoe pits along one side or one end and just outside of the fenced courts area. In every case the horseshoe pits should be so located as to eliminate any cross traffic and thus avoid any chance of a child being struck by a horseshoe.

A drinking water supply outside of the building should be provided for the courts area. In many communities there will be a desire and a need for lighting this part of the outdoor facilities to permit utilization at night by adults and out-of-school youth.

### High School Girls' Area

A separate area for high school girls is essential in order to give all girls an opportunity to participate fully in an adequate physical education program. Such space should be located as near the gymnasium as possible with only the elementary playground and the courts area having priority. This enables little loss of time in getting the regular girls' physical education classes to and from the building.

The suggested minimum size for the girls' area is [illegible]0 feet by 280 feet (approximately two acres) of level turfed l[illegible] This area will adequately meet the physical education and recreation needs of the average central rural high school of junior and senior high school girls. Such a plot will not only allow for physical education class instruction but also will provide one full-sized official field for such organized games and sports as softball, field hockey, soccer, speed ball, or lacrosse. A full class of 40 pupils can be actively engaged in these games because there will be sufficient space for two softball diamonds or two minimum-sized official fields for soccer, field hockey, lacrosse, or speed ball. Also, this space allows for the simultaneous instruction of a junior high school girls' group and a senior high school girls' class. More space than two acres is necessary if archery is part of the girls' program. Space for tennis, badminton and volleyball has been provided in the courts area.

If this area is to be used for community softball in the summer evenings and night skating in the winter, consideration should be given to the installation of lighting facilities unless it is desired to place these activities on the football field of the interschool athletic area, where it may be found necessary to instal lights for the night football games.

### High School Boys' Intramural Area

As has been stated, there are three areas, namely, the elementary area, the courts area and the high school girls' area that have

preference over the high school boys' intramural area when it becomes a matter of choice of which one shall be nearer the building. The high school boys' intramural area, however, should be located as near as possible to the shower and dressing facilities in order to avoid excessive loss of time in getting to and from the physical education outdoor classes.

This turfed and level area with recommended minimum size of 380 feet by 350 feet (approximately three acres) is used for the physical education classes while school is in session and the intramural and recreation activities outside of regular school hours. A junior high school class and a senior high school boys' group can receive instructions on such an area at the same time. This space makes possible the playing of softball, soccer, football, speed ball, touch football and lacrosse and provides for either one full-sized official field or two minimum-sized official playing areas for any one of these sports. As is the case in the courts area, the posts supporting the backstops for softball and the goals for either soccer or football can be constructed so that they may be removed and the pipes capped.

If it is impossible to procure the land for a separate athletic field, varsity baseball and football or soccer may be played on the high school boys' intramural area, but obviously this will seriously conflict with after-school intramural activities for boys unless, for example, intramurals are scheduled three after-school periods a week and varsity sports for two afternoons a week. If a place for track is desired and the one-fourth mile oval can not be provided, a straightaway of 380 feet and 15 to 20 feet in width may be constructed along, and at least 10 feet away from, the side of the playing field. Also at the ends of this area or along the sides can be placed the broad or high jumping pits and the pole vault area. It should be noted that if baseball and football or soccer are played on this area, the best orientation for both the baseball diamond and the football or soccer field can not be obtained. If the straightaway track is also to be provided with these joint football and baseball facilities, care should be taken to see that the straightaway is constructed as far from home plate as possible in order to avoid the danger of track athletes being hit by a batted ball.

### Interschool Athletic Area

This area often provides the only athletic facilities for the entire community and, therefore, should be planned for the use of the school population and the adults of the district. The program to be provided

with these facilities is the big factor in determining the amount of land necessary.

Football and track may be adequately provided for in a turfed and level area of approximately 600 feet by 280 feet (about four acres) with the football field being placed within the track oval. It is not considered advisable to place a baseball diamond on this area as track and baseball are both spring sports. A baseball diamond does not fit advantageously within the track and such a plan creates a hazard wherever it is attempted.

If a one-quarter mile track oval can not be provided, football and baseball can easily be accommodated in the space of about 360 feet square (approximately three acres) as the outfield of the baseball diamond may overlap on the football playing field. The correct orientation for both the baseball diamond and the football or soccer field can not be obtained when a combination football and baseball playing area are placed in the above-mentioned space. Limited track facilities may be provided on such a field by the construction of a 360-foot straightaway along the side of the football field which is farthest removed from the baseball diamond. This straightaway is generally 15 feet to 20 feet in width and at least 10 feet from the football field sidelines.

An area of about 350 feet by 350 feet will accommodate a baseball field alone. This allows for a minimum of 50 feet from home plate to the backstop and at the same time permits adequate space outside the first and third base lines.

For a field to play either football or soccer, a level turfed area of 400 feet by 220 feet (approximately two acres) meets the requirements not only for the playing area but also allows space for temporary bleachers on the sides as well as allowing for a straightaway track described above, broad and high jumping pits and a pole vault area. It is noteworthy that two softball diamonds may be located on a football or soccer field, thus giving a total of six softball diamonds when there are two each on the high school girls' area and the high school boys' intramural area.

It is recommended that the track straightaway be a part of the high school boys' intramural area if there is to be no interscholastic football or soccer field in addition to the high school boys' intramural area.

### Winter Activities

Winter activities have been growing in popularity considerably within the past decade, and more and more schools are providing facilities for these sports.

The kindergarten playground has its surfaced space which can be kept free from snow for play activities at all times during the winter, thus eliminating any reason, other than inclement weather, for the children to remain indoors all through the long winter season. When there is sufficient snow, sleds, small skiis and other winter equipment may be used and all little folk enjoy making snowmen and running and jumping in the snow. The many pleasant days of winter offer an opportunity for all elementary children to get outdoors to play in running games and games of low organization as well as to do some skating and skiing under supervision and with some instruction.

When the natural features of a recreational field provide a slope or hill, the elementary pupils will thoroughly enjoy coasting, and often this same area is suitable for skiing. This sport has grown tremendously in popularity in recent years, and instruction in this art may be commenced early in the life of the child. Different degrees of slope in the natural area, therefore, are desirable as this allows for progress on the part of the ski pupil from one level of ability to another.

If there is sufficient room, a toboggan slide can be constructed that not only will be used by the school population but also will be most popular with the community residents.

A very fine skating area may be provided either on the courts area (an asphalt surface) or on the high school girls' area (a turfed space). Both of these locations have been used advantageously for this purpose and require only a thorough knowledge of the correct procedure to produce a very fine ice-skating area.[1] It is always well to divide the skating space into at least three divisions, namely, (1) the recreation and instruction area for elementary pupils, (2) the recreation and instruction area for secondary pupils, and (3) the hockey-playing area. In order to provide for the comfort of the skaters, an entrance into a warming room provided within the building is desirable. This is another reason for placing the skating rink in either the courts area or the high school girls' area as both have been recommended for placement near the school building.

### General Considerations

For all of the five areas discussed herein, consideration must always be given to secure level land that is readily and efficiently drained. It is also most important to provide an adequate supply of drinking

[1] See page 13.

water in summer to all areas of the playground. The water supply line to the area to be used as a skating rink should be piped at least four feet underground.

Experience has indicated that a direct entrance to the locker rooms from the outdoor physical education and recreation areas keeps dirt out of the corridor and eliminates considerable wear and tear on other parts of the building, as well as being more efficient from the standpoint of saving time and decreasing the noise reaching the classrooms.

Toilet facilities should be available for those using the outdoor physical education and recreation areas. Such facilities should be accessible to the playground without having first to enter some other part of the building. Some schools may wish to provide within the building toilet rooms exclusively for those utilizing the playground area, while others may find it feasible to locate regular toilet facilities in such a manner that they can be entered directly from outdoors.

Storage of outdoor physical education equipment such as liners, goal posts, court posts and hurdles can be provided ordinarily in a room approximately 20 feet by 12 feet and may be situated advantageously in the bus garage or in the main building. It is considered advisable to locate the equipment storage as near the playground areas as possible.

## Summary

In order to provide outdoor facilities for the basic needs of the physical education and recreation program of a school, kindergarten through grade 12, a minimum of 12 acres of level, usable land is needed. This amount of space is divided as follows: elementary area, three acres; courts area, one acre; high school girls' area, two acres; high school boys' intramural area, three acres; interschool athletic area, three acres. This interschool athletic area may be used for baseball in the spring and summer, and football or soccer in the fall by sacrificing the best orientation of the playing field for one of these sports.

A more adequate area for the interschool athletic program is seven acres as this permits a quarter-mile track around the football field and also eliminates joint usage of any area for different sports. The addition to the interschool athletic area of these four acres will increase the amount of needed land to sixteen level acres. In order to provide a separate area for archery and space for a golf-driving range, a natural theater, a picnic area and a skiing and tobogganing area, additional and suitable land is necessary.

In locating an archery range and a golf-driving range, it is important to place these activities in isolated areas in order to avoid the possibility of any injury to anyone.

### Preparation of Surfaces for Skating Rinks

Experience indicates that ice-skating rinks have been built with success on several different types of surfaces. These include dirt, cinders, asphalt and turf.

Many court areas are used for ice skating and these areas are usually of clay or asphalt or some similar material. The court areas are usually near the building and the parking area, have an immediate water supply and excellent drainage, all of which are of value to the skating rink.

Any court area to be used as a skating rink should have good subsurface drainage and any holes or cracks in an asphalt surface should be eliminated. With efficient drainage construction and proper surface care, no ice damage should occur from the use of the court area for skating.

Great success in recent years has been had in making skating rinks on turf areas. Some schools prefer a snow base on such an area and others start spraying water, with a prevailing temperature of 10° to 15° F., directly on the turf area. Frozen hard ground or a frozen cinder area or an asphalt surface also may be sprayed directly under the same conditions. The important rule in the spraying operation is never to apply more water than will freeze immediately.

In preparing the turf area, the grass should be mowed and kept short until it is time to begin the process of preparation. If a snow base is to be used, ideal conditions for making an ice surface exist when there are from two to four inches of snow on frozen ground. If there are more than four inches of snow on the frozen ground, the snow will act as an insulator and delay freezing, thus making the job of spraying more difficult. The snow remaining on the area to be used should be packed down. Various ways to acomplish the packing down of the snow have been used sucessfully but it is important to eliminate all rough spots.

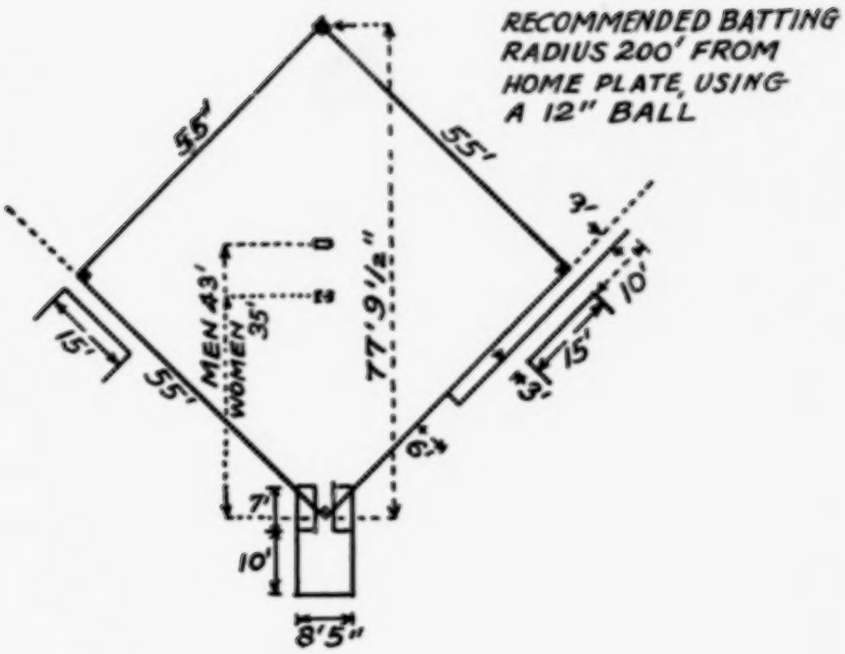
When a surface is leveled, perfectly clean and free from debris, spraying with water can begin. With a black asphalt surface, however, some provisions must be made to prevent the absorption of the sun's rays before commencing to spray the water. This has been accomplished in some places by covering the black surface with light-colored building paper or newsprint. When an ice-skating rink

is built up by the spraying process no embankment of any kind is necessary.

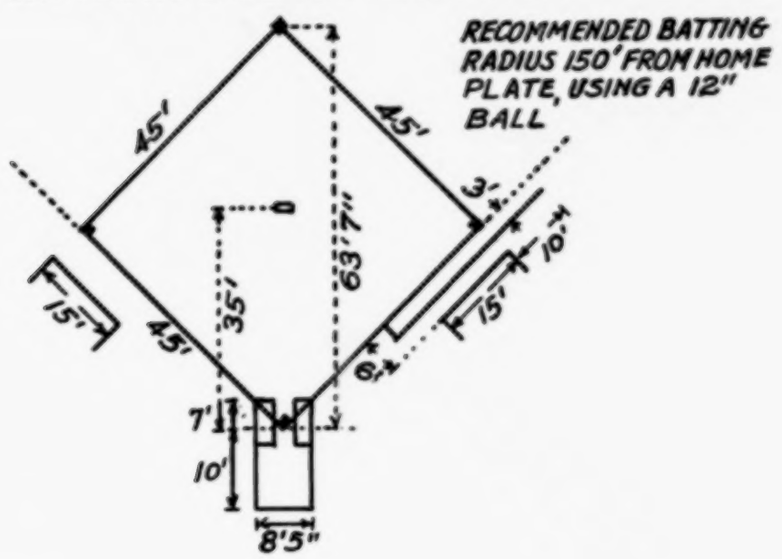
The best time to perform the spraying of an area to be used for ice skating is early morning or evening when the direct rays of the sun are not striking the ice. It is very important when starting to build up the ice surface that a fine spray without too large a volume of water be used. An excess of water may cause thawing and create the formation of shell ice. Spraying is best accomplished by a shower head on a hose of not more than one inch in diameter. When a good layer of ice has been built up an inch-and-one-half or two-inch hose may be used. If the water is directed upward and allowed to fall like rain there will be a greater opportunity for it to cool, thus creating faster freezing. After the original ice surface has been made, ice can be built up at any time the temperature is below 26° and the sun is not shining.

# REGULATION FIELDS AND COURTS

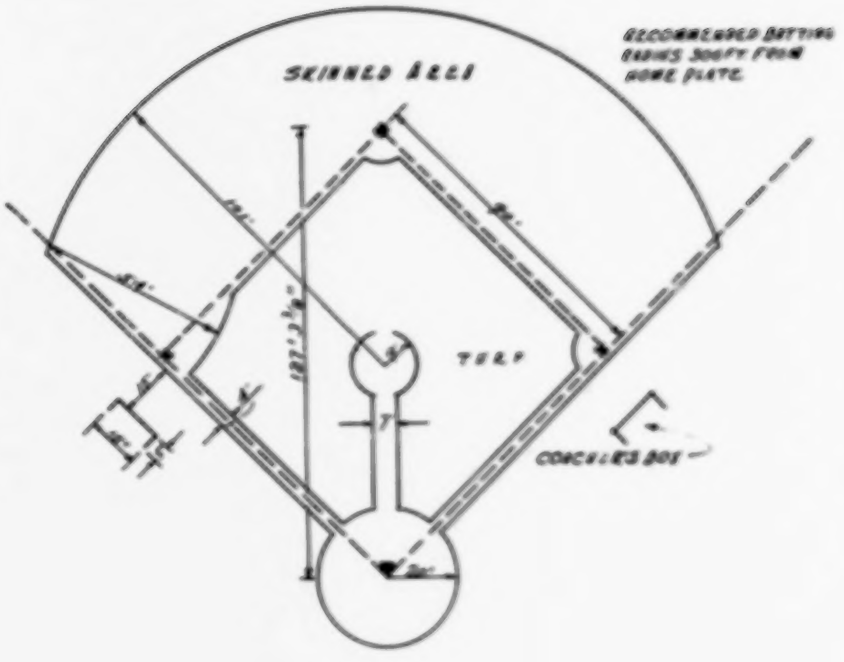
## SOFT BALL
### REGULATION FIELD

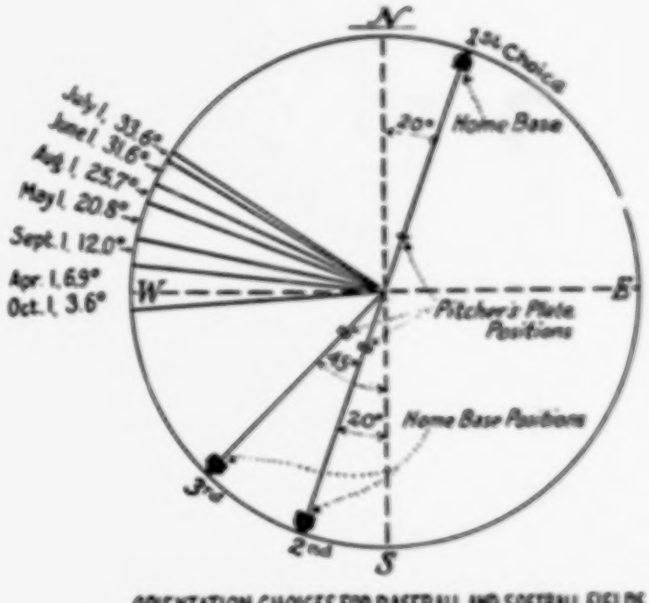



### FOR YOUNGER BOYS AND GIRLS



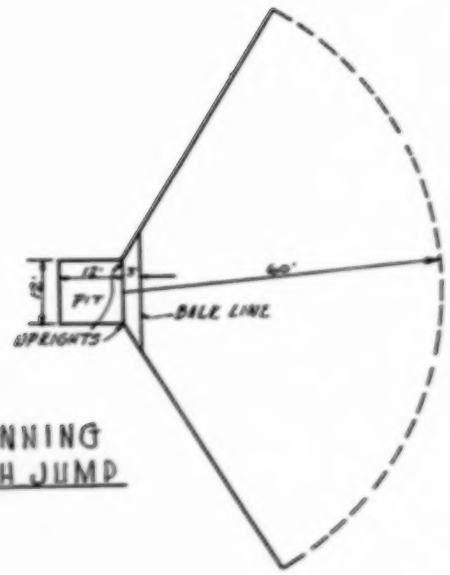
## BASE BALL



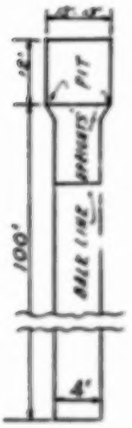




ORIENTATION CHOICES FOR BASEBALL AND SOFTBALL FIELDS
SUNSET POSITIONS AND HOME BASE LOCATIONS

## RUNNING HIGH JUMP

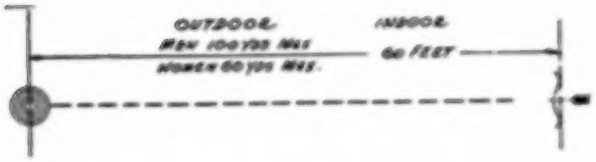



## POLE VAULT

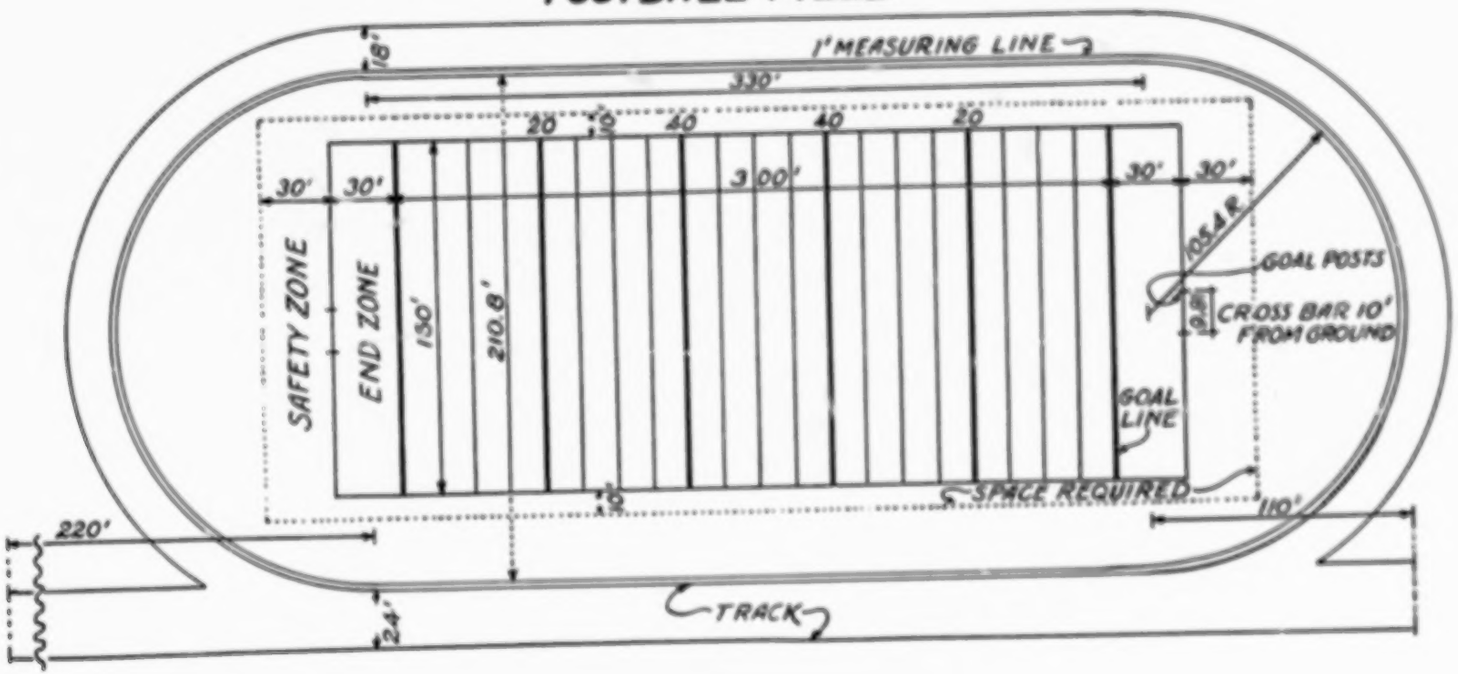


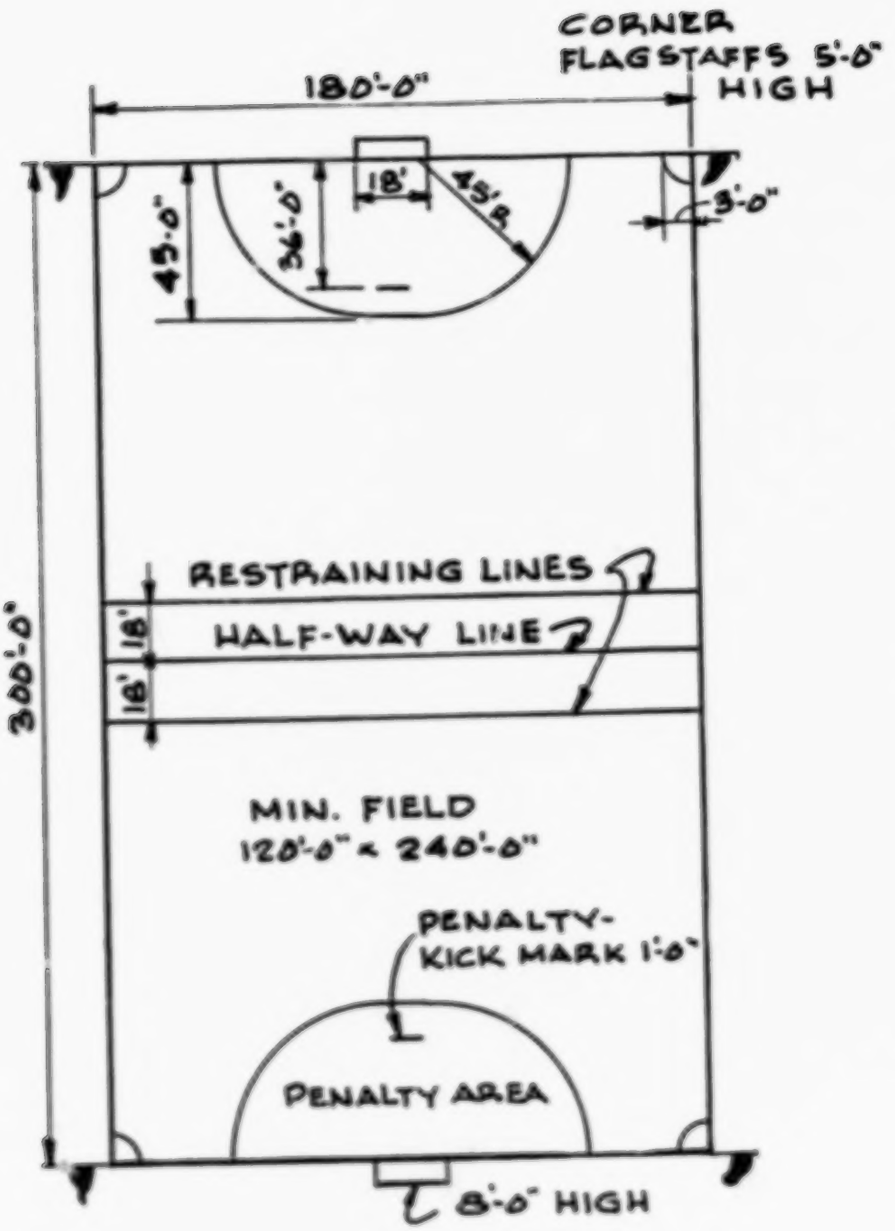

## RUNNING BROAD JUMP

## ARCHERY

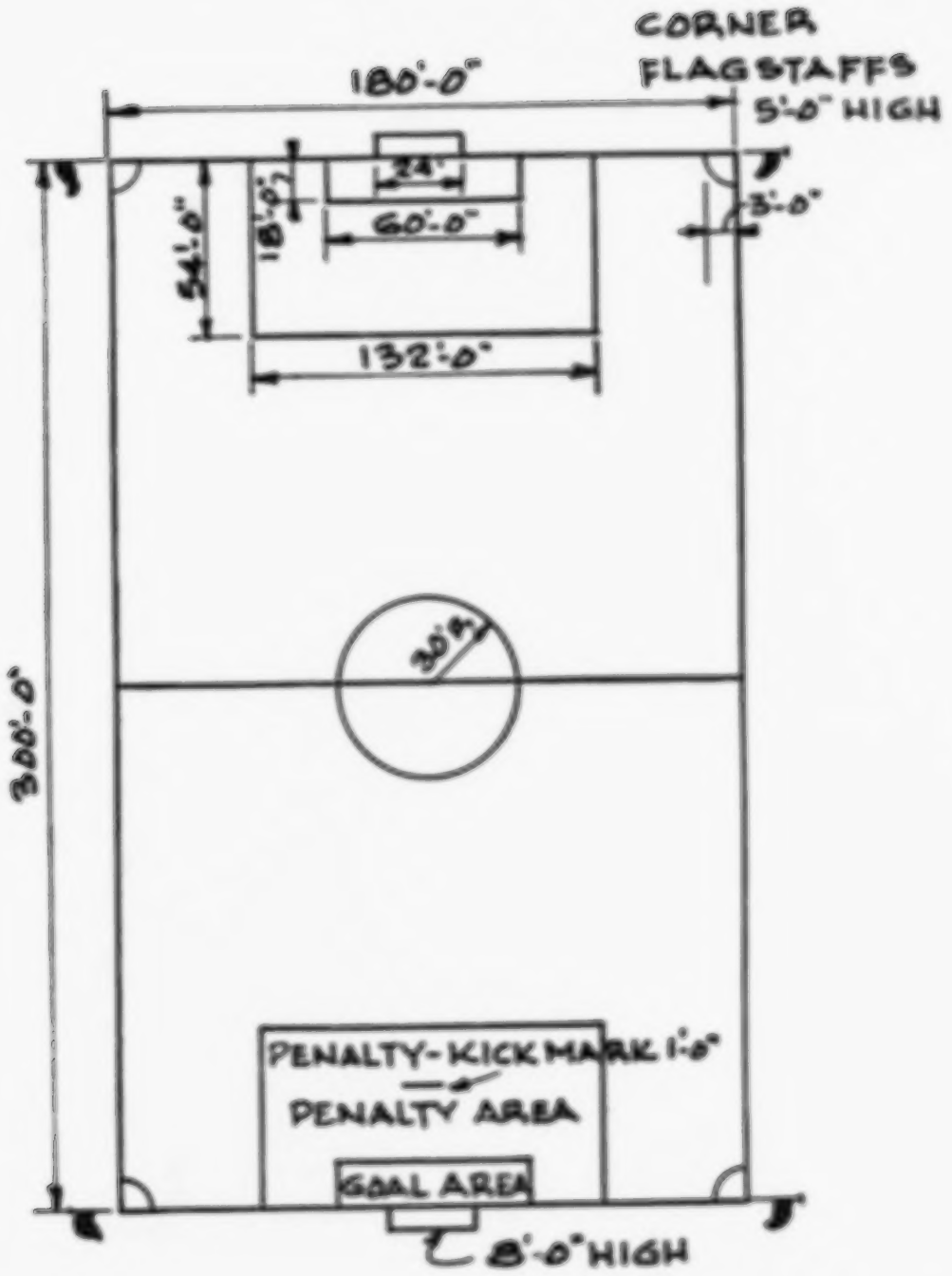


# 440-YARD TRACK
# FOOTBALL FIELD

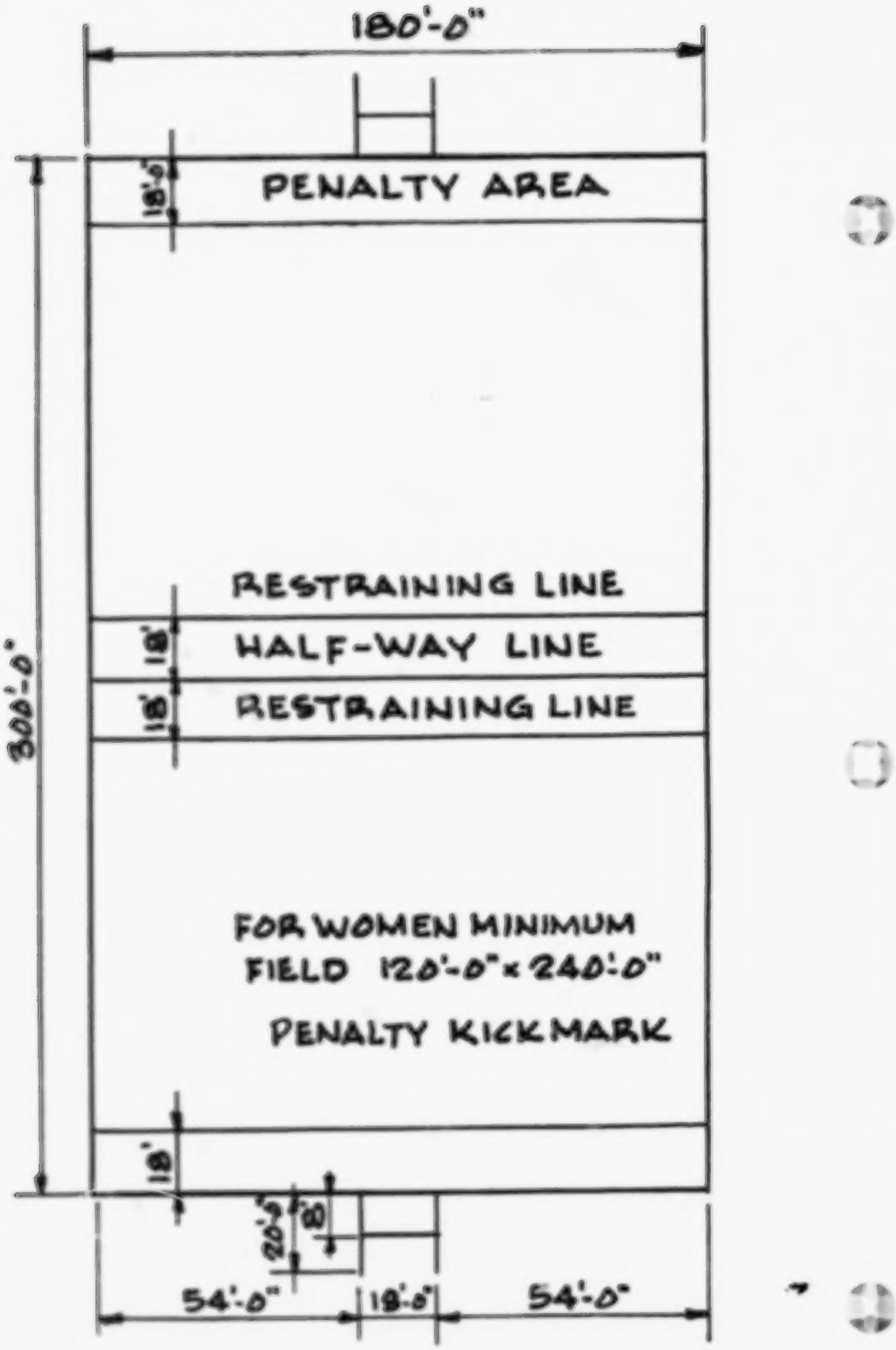





# SOCCER WOMEN

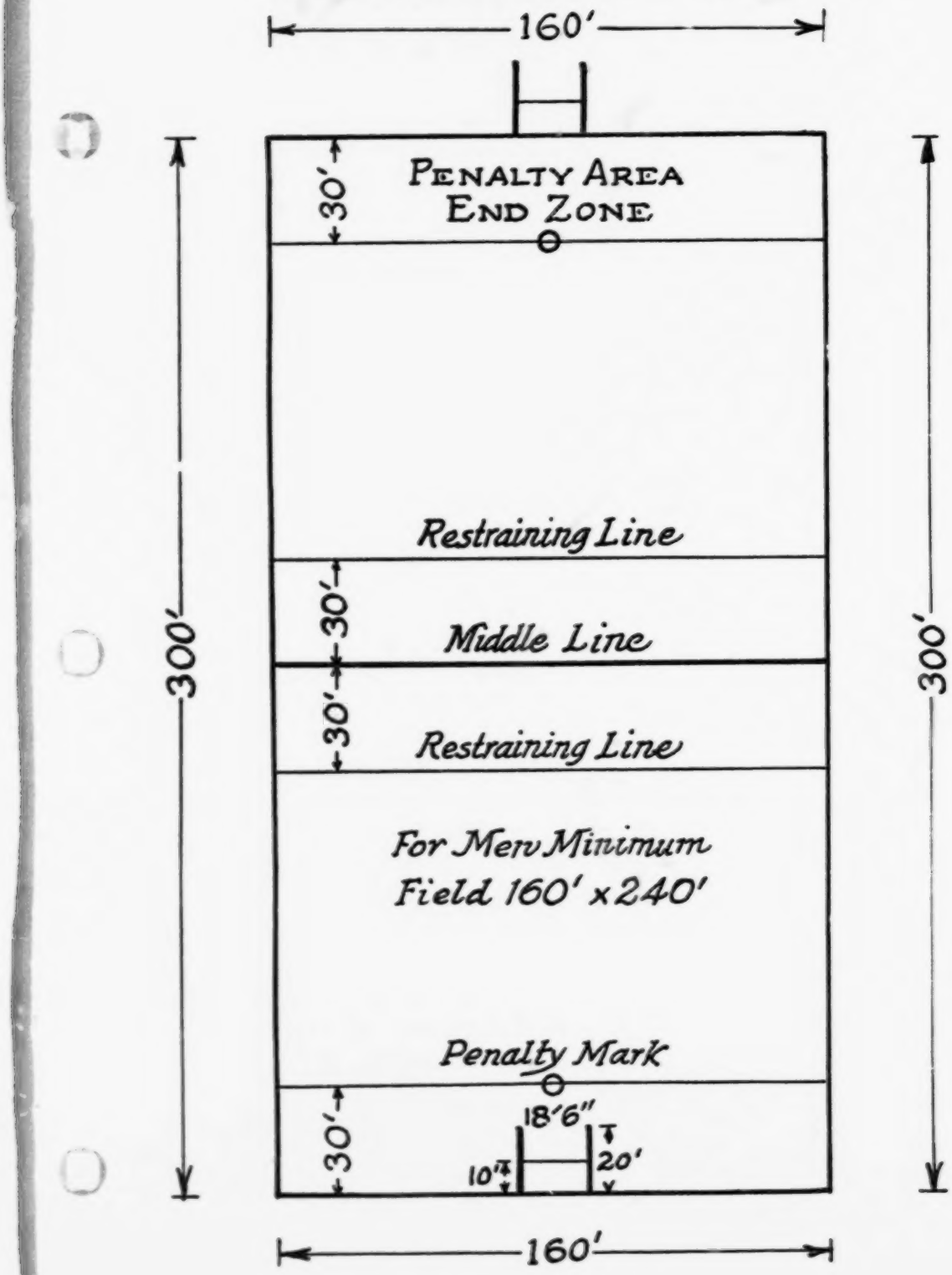

CORNER
FLAGSTAFFS
5'-0" HIGH
180'-0"
24'
60'-0"
18'-0"
54'-0"
3'-0"
132'-0"
30'-0"
300'-0"
PENALTY-KICK MARK 1'-0"
PENALTY AREA
GOAL AREA
8'-0" HIGH

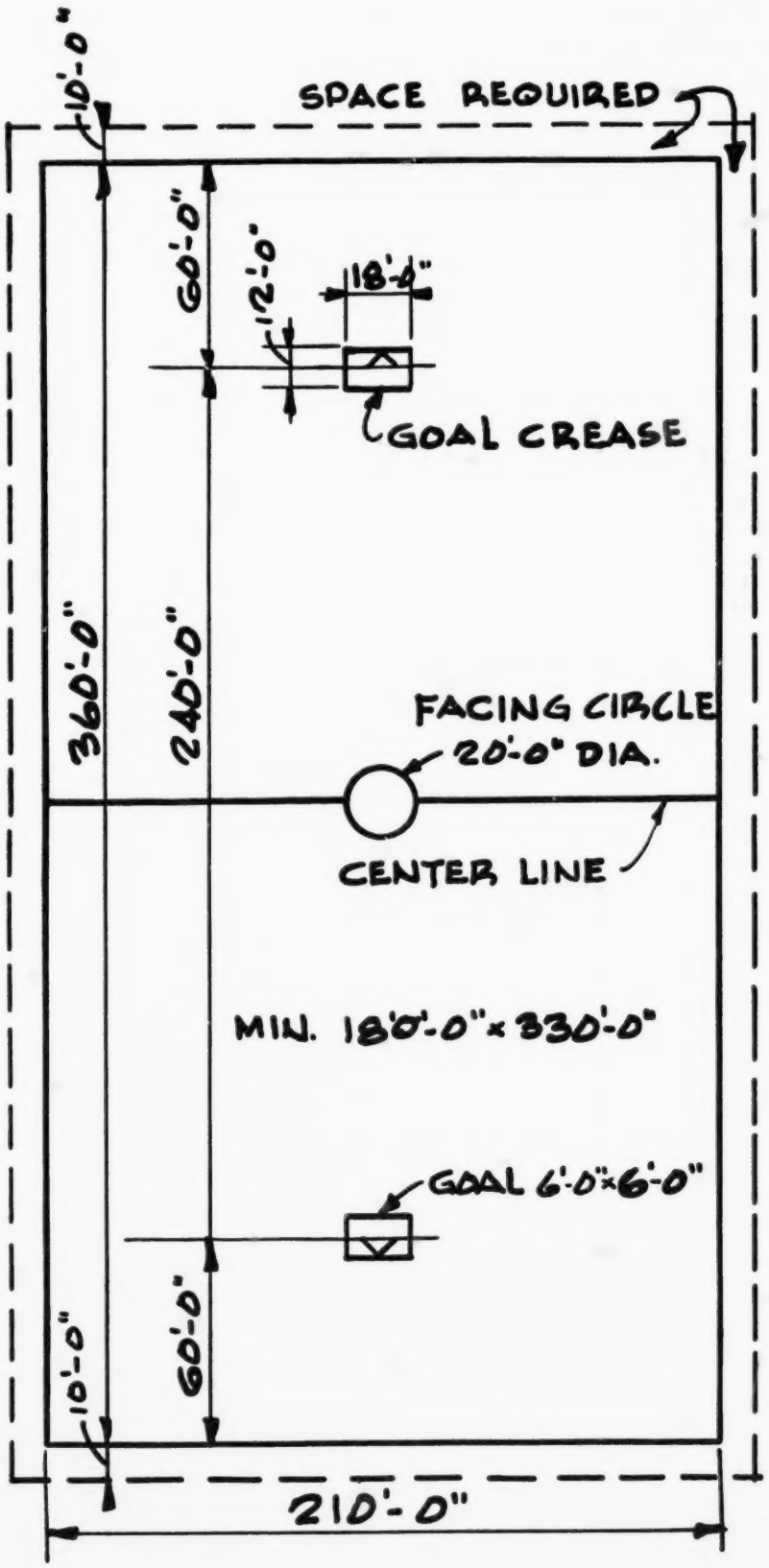
# SOCCER MEN




SPEEDBALL WOMEN

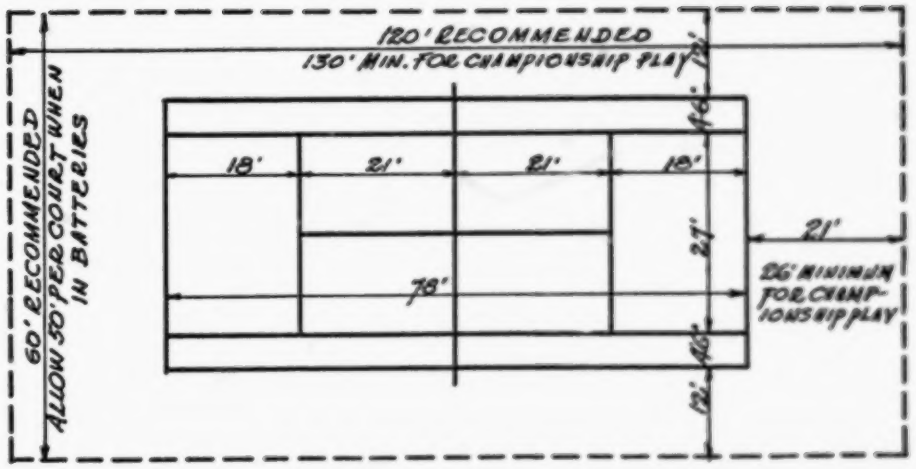
# SPEEDBALL ~ MEN



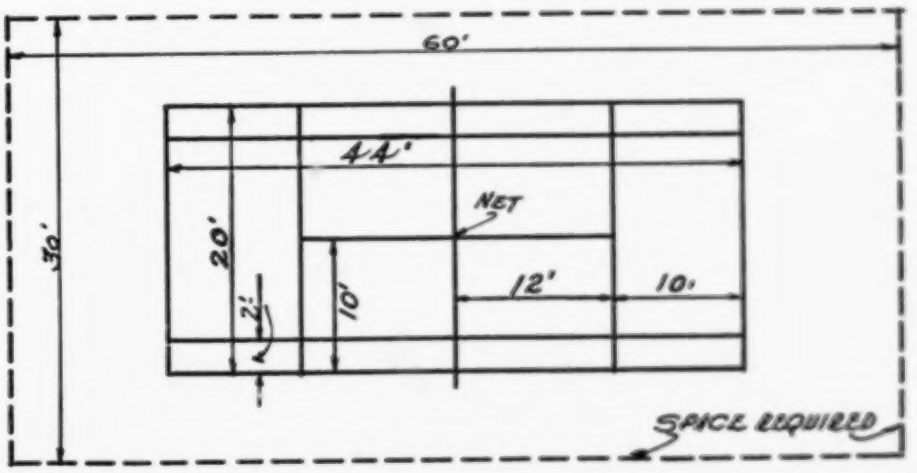

10'-0"
SPACE REQUIRED
60'-0"
12'-0"
18'-4"
GOAL CREASE
360'-0"
240'-0"
FACING CIRCLE
20'-0" DIA.
CENTER LINE
MIN. 180'-0" x 330'-0"
GOAL 6'-0"x6'-0"
10'-0"
60'-0"
210'-0"

# LACROSSE

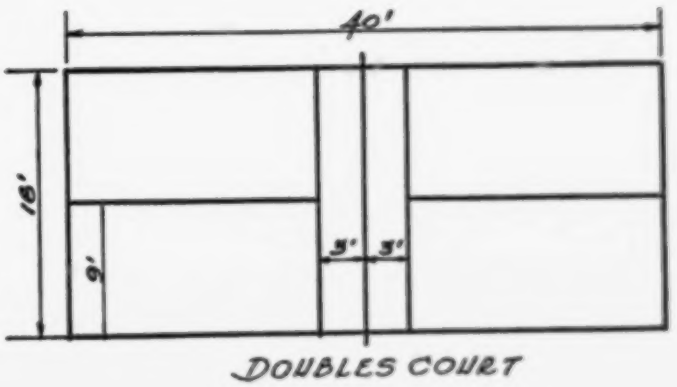
## TENNIS




## PADDLE TENNIS

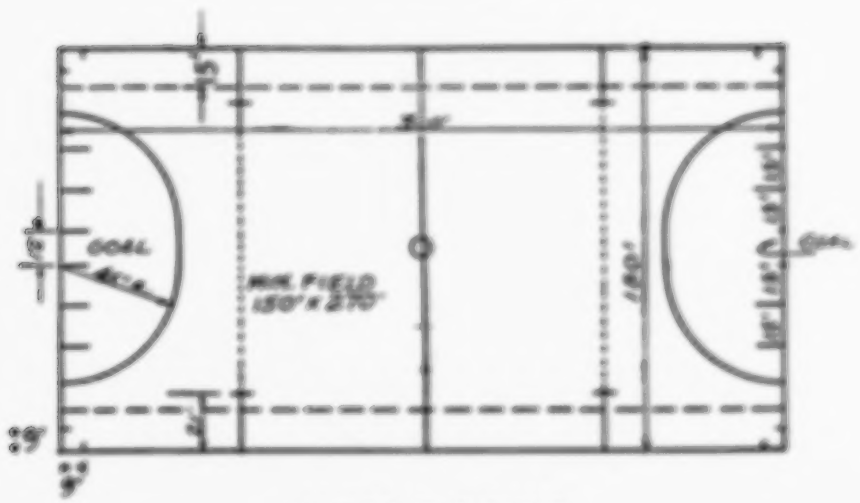



## DECK TENNIS

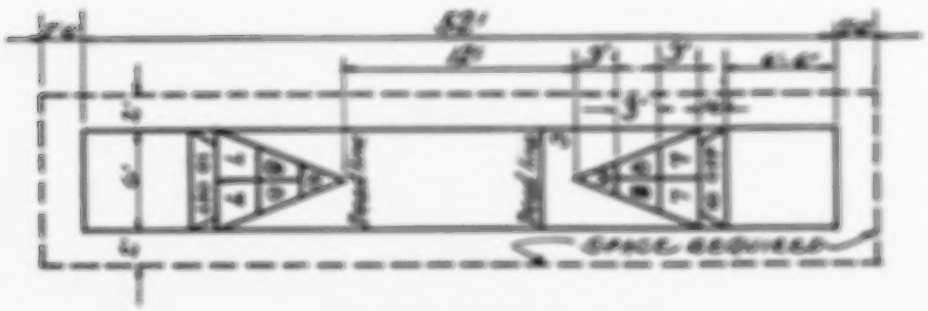



DOUBLES COURT

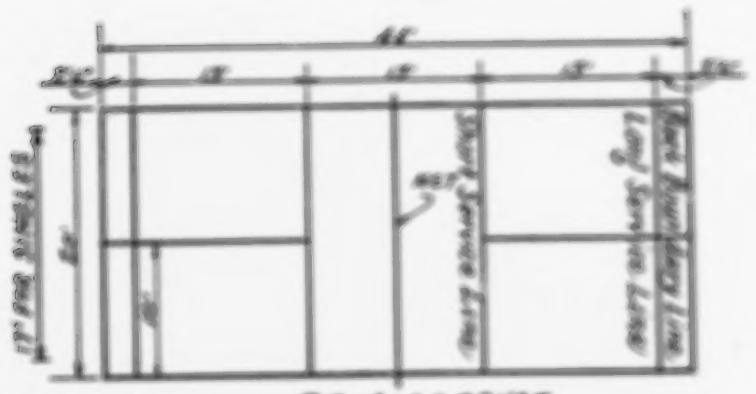
## FIELD HOCKEY-WOMEN



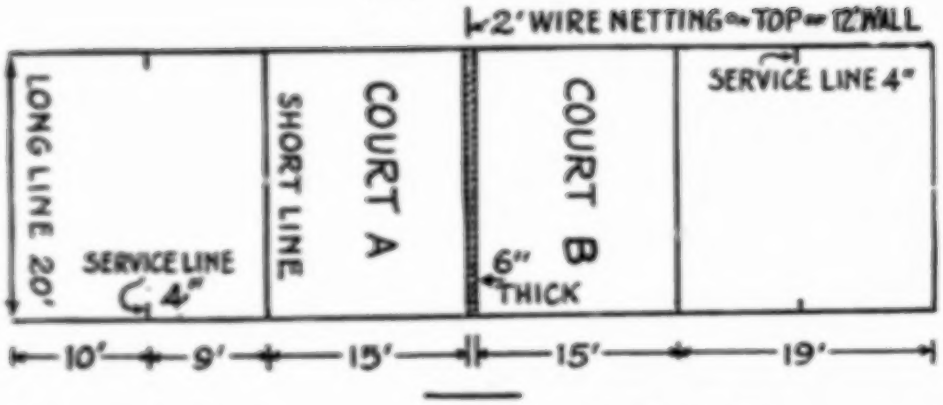

## SHUFFLE BOARD



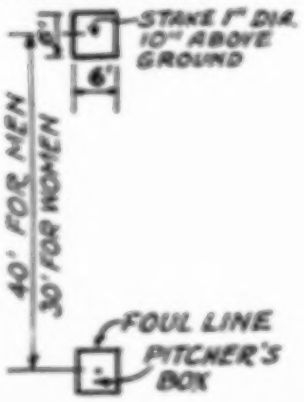

## BADMINTON



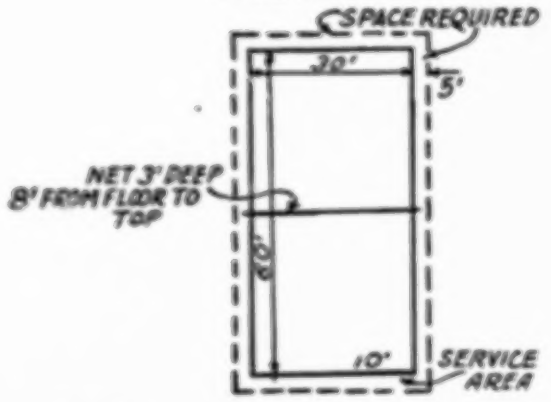
## HANDBALL



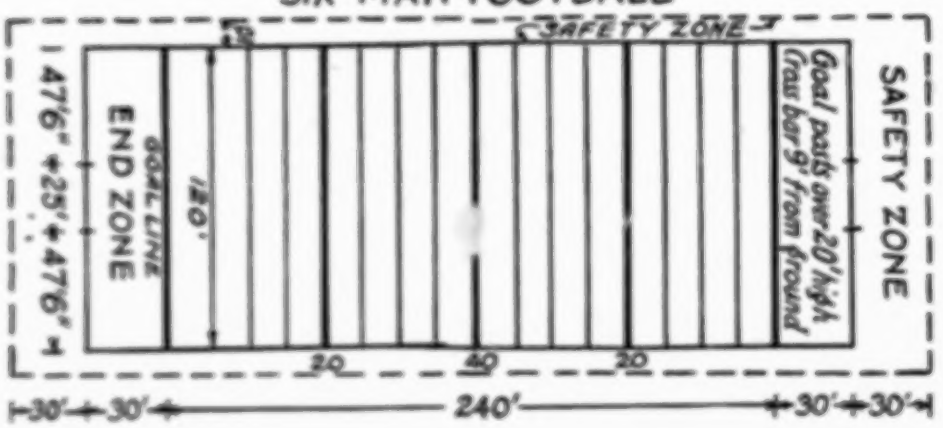

## HORSESHOE PITS




## VOLLEYBALL




## SIX-MAN FOOTBALL



# PLANNING THE OUTDOOR PHYSICAL EDUCATION FACILITIES

I301-Je67-1,000